CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 82-8

NPDES PERMIT NO. CA0006343

WASTE DISCHARGE REQUIREMENTS FOR:

CALGON CORPORATION
SOUTH SAN FRANCISCO, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Calgon Corporation, a subsidiary of Merck & Company Inc., hereinafter called the discharger, submitted a report of waste discharge (NPDES Standard Form 2C) dated August 14, 1981 for a reissuance of its current NPDES Permit No. CA0006343, adopted February 15, 1977.

2. The discharger currently discharges an average of 3.0 mgd of industrial waste containing pollutants into central San Francisco Bay, a water of the United States, at a point one mile offshore from Point San Bruno at a depth of about 17 feet. This discharge is through an outfall pipe jointly used by the cities of South San Francisco, San Bruno, Burlingame, Millbrae, and the San Francisco International Airport.

3. The discharger's waste consists principally of magnesium and calcium compounds in dissolved and suspended form, produced during precipitation of magnesium hydroxide from bay water. In addition, the waste contains filtrates, wash water, sealing water from rotary vacuum filter pumps, flue gas scrub water, filter backwash water, boiler blowdown, bay water foamate, and laboratory wastes. Sanitary sewage is discharged to the City of South San Francisco sewer system.

4. The discharge is presently governed by Waste Discharge Requirements Order No. 77-13 which allows discharge to San Francisco Bay.

5. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for San Francisco Bay.

6. The beneficial uses of San Francisco Bay are:

   a. Recreation.
   b. Fish migration and habitat.
   c. Habitat and resting for waterfowl and migratory birds.
   d. Industrial water supply.
   e. Esthetic enjoyment.
   f. Navigation.
   g. Shellfish propagation and harvesting for human consumption.

7. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

9. On March 17, 1982 the California Regional Water Quality Control Board, San Francisco Bay Region, after due notice, held a hearing under the provisions of Water Code Section 13301 regarding the discharge of waste and pollutants by Calgon Corporation.

10. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator, U. S. Environmental Protection Agency, has no objections.

IT IS HEREBY ORDERED that Calgon Corporation, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act, as amended, and regulation and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharger shall not have a pH of less than 6.0 nor greater than 9.0. This requirement shall be waived when the combined effluent, as discharged through the joint outfall, has a pH of not less than 6.0 nor greater than 9.0.

2. In any representative set of samples the waste as discharged to the combined outfall shall meet the following limit of toxicity:

> The survival of test fishes in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival.

Compliance with this requirement may be demonstrated using effluent samples for which the pH has been adjusted to the pH of the combined effluent as discharged from the subregional outfall.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State.

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Aquatic growths or bottom deposits;

   c. Alteration of temperature or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

   f. Unnatural changes in turbidity or light transmittance where change impairs beneficial use. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas of 10 JTU or more. Waters of characteristically low natural turbidity (high clarity) shall be maintained so that discharges do not cause visible, aesthetically undesirable contrast with the naturall appearance of the water.

   g. Substances that will form detrimental deposits and material that can cause or induce formation of combinations or amounts of deposited materials that can be deleterious to beneficial uses of waters and underlying surfaces, with or without resuspension of any deposits.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved Sulfide	0.1 mg/l maximum.

c.	pH	Variation from natural ambient pH by more than 0.2 pH units.
d.	Un-ionized Ammonia as N	0.025 mg/l, Annual median 0.4 mg/l, maximum at any time

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Discharge Prohibitions

1. The discharge of waste at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

2. The discharge of sanitary sewage directly to waters of the State is prohibited.

D. Provisions

1. Storm runoff from all processing areas of the plant site shall be collected and routed for discharge through the outfall pipe.

2. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 77-13, adopted by this Board on February 15, 1977. Order No. 77-13 is hereby rescinded.

3. The discharger shall submit to the Executive Officer a contingency plan for the continuous operation of facilities for the collection, treatment and disposal of waste pursuant to Regional Board Resolution No. 74-10 within 120 days after adoption of this Order.

4. The discharger shall comply with the Self-Monitoring Reporting Program as ordered by the Executive Officer.

5. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated April 1977 except A.5 and B.2.

6. The discharger shall notify the Board not later than 180 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiling water treatment and which are discharged.

8. This Order expires March 15, 1987. The discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such dates, as an application for issuance of new waste discharge requirements.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 17, 1982.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions and Reporting Requirements (April 1977)
Resolution No. 74-10
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

T E N T A T I V E

SELF-MONITORING PROGRAM
FOR

Calgon Corporation

South San Francisco

San Mateo County

NPDES NO. CA 0006343

ORDER NO. 82-8

CONSISTS OF

PART A, dated January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

Station	Description
E-001	At any point in the interceptor from the discharger's facilities between the point of connection with the subregional outfall and the point at which all of the discharger's waste tributary to that interceptor is present.
E-002	At any point in the subregional outfall where all the waste tributary to the outfall are present.

B. RECEIVING WATERS

Station	Description
C-1	At a point in San Francisco Bay located over the geometric center of the outfall's discharge ports.
C-2	At a point in San Francisco Bay located midway between C-1 and C-3.
C-3	At a point in San Francisco Bay located in the center of the waste plume.
C-50-SW	At a point in San Francisco Bay, located 50 feet southwesterly, along the outfall line shoreward from Station C-1.
C-50-NW	At a point in San Francisco Bay, located 50 feet northwesterly from Station C-1, normal to the outfall line.
C-50-NE	At a point in San Francisco Bay located 50 feet northeasterly from Station C-1 along the outfall line extended.
C-50-SE	At a point in San Francisco Bay located 50 feet southeasterly from Station C-1 normal to the outfall.

B. RECEIVING WATERS (Cont'd)

Station	Description
C-300-N thru C-300-NW (8 stations)	At a point in San Francisco Bay located on a 300-foot radius from the geometric center of the outfall diffuser, at equidistant intervals, with Station C-300-SW located shoreward from Station C-1 at the outfall line.
C-R-NW	At a point in San Francisco Bay located approximately 1500 feet northerly from the point of discharge.
C-R-SE	At a point in San Francisco Bay, located approximately 1500 feet southeasterly from the point of discharge.

C. LAND STATIONS

Station	Description
L	At the eastern fenced perimeter of the facility, downhill and adjacent to the grit and lime sludge holding area.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling, measurements and analysis shall be that given as Table I.

III. MODIFICATION OF PART "A", DATED 1/78

A. Exclusions: Paragraphs C.3., C.4, C.5.d.1,3, and 4, C.5.e, D.1, D.4, E.4.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 82-8.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachments:
Table I
Legend for Table I

Effective Date March 25, 1982

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

SAMPLING STATIONS	E-001		E-002		C	L			
TYPE OF SAMPLES	C-24	G	C-24	G	G				
Flow Rate (mgd)		Cont							
Settleable Matter (ml/l-hr & cu. ft/day)		2/W							
Total Suspended Matter (mg/l & kg/day)	2/W								
Fish Toxicity, % Survival in undiluted waste	(1) M		(3) M						
Turbidity (Jackson Turbidity Units)					2/M				
pH (units) (2)		Cont		(2) Cont	2/M				
Apparent Color (Color units)					2/M				
All Applicable Standard Observations		5/W			2/M	5/W			
Dissolved Oxygen (mg/l and % Saturation)					2/M				
Secchi Disk (inches)					2/M				
Temperature (^{O}C)					2/M				

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour

TYPES OF STATIONS

E = waste effluent stations
C = receiving water stations
L = land retention area

FREQUENCY OF SAMPLING

D = once each day
W = once each week
M = once each month
2/W = 2 days per week
2/Y = once in March and once in Sept.
5/W = 5 days per week
2W = every 2 weeks
Cont = continuous

NOTES:

(1) Prior to the toxicity test, the discharger may adjust the undiluted waste pH to the average pH of the preceeding 24 hours of the combined effluent as discharged from the subregional outfall. Sampling date should coincide with date of sampling for total suspended solids and settleable solids in E-001.

(2) At his option the discharger may monitor pH continuously at E-002 to establish compliance with effluent limitations. Continuous monitoring pH equipment shall be calibrated at least weekly and the results reported in the discharger's monthly Self-Monitoring Reports.

Minimum and maximum daily pH values and the time of their occurrence should be reported, in addition to:

a. Number of events when pH was outside the limitations

b. Total (cumulative) hours and minutes that pH was outside the limitations

c. Duration of the longest continuous period of such violation

(3) Sample for bioassay at E-002 to be taken coincident with sample at E-001. Sample pH shall not be adjusted. The discharger may use bioassay results from a sample taken on the appropriate day at E-002 by South San Francisco/San Bruno treatment plant personnel.